Final Supplemental Environmental Impact Statement for the Keystone XL Project
Volume X - Appendices N, O, and P
January 2014

Applicant for Presidential Permit: TransCanada Keystone Pipeline, LP
Front cover photo sources in order of appearance top to bottom:

Whooping crane

Black-footed ferret

Sage grouse

American burying beetle
United States Department of State  
Final Supplemental Environmental Impact Statement  

For the  
KEYSTONE XL PROJECT  
Applicant for Presidential Permit:  
TransCanada Keystone Pipeline, LP  

Volume X  

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Cooperating Agencies  
U.S. Army Corps of Engineers (USACE)  
U.S. Department of Agriculture—Farm Service Agency (FSA)  
U.S. Department of Agriculture—Natural Resource Conservation Service (NRCS)  
U.S. Department of Agriculture—Rural Utilities Service (RUS)  
U.S. Department of Energy (DOE)  
U.S. Department of Interior—Bureau of Land Management (BLM)  
U.S. Department of Interior—National Park Service (NPS)  
U.S. Department of Interior—U.S. Fish and Wildlife Service (USFWS)  
U.S. Department of Transportation—Pipeline and Hazardous Materials Safety Administration, Office of Pipeline Safety (PHMSA)  
U.S. Environmental Protection Agency (USEPA)  

Assisting Agencies  
U.S. Department of the Interior, Bureau of Reclamation (BOR)  
Nebraska Department of Environmental Quality (NDEQ)  
Various State and Local Agencies in Montana, South Dakota, Nebraska, and Kansas  

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<tr>
<td>°C</td>
<td>degrees Celsius</td>
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<tr>
<td>°F</td>
<td>degrees Fahrenheit</td>
</tr>
<tr>
<td>%HA</td>
<td>percent highly annoyed</td>
</tr>
<tr>
<td>µg/m³</td>
<td>microgram(s) per cubic meter</td>
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<tr>
<td>/m</td>
<td>per meter</td>
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<td>AA</td>
<td>alluvial aquifer</td>
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<td>Ambient Air Quality Standards</td>
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<td>AAR</td>
<td>American Association of Railroads</td>
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<td>ABMI</td>
<td>Alberta Biodiversity Monitoring Institute</td>
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<td>alternating current</td>
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<td>Advisory Council on Historic Preservation</td>
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<td>American Community Survey</td>
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<td>Alberta Energy and Utilities Board</td>
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<tr>
<td>AG</td>
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<td>AIRFA</td>
<td>American Indian Religious Freedom Act of 1978</td>
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<td>Al-Pac FMA</td>
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<td>AMSL</td>
<td>above mean sea level</td>
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<td>best management practice</td>
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<td>barrels per stream day</td>
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<td>CAFE</td>
<td>Corporate Average Fuel Economy</td>
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<td>CAFO</td>
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<td>capital expenditure</td>
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<td>CARB OPGEE</td>
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<td>CBOB</td>
<td>conventional blendstock for gasoline blending</td>
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<td>OCC</td>
<td>Operations Control Center</td>
</tr>
<tr>
<td>OECD</td>
<td>Organization for Economic Cooperation and Development</td>
</tr>
<tr>
<td>OGP</td>
<td>International Association of Oil and Gas Producers</td>
</tr>
<tr>
<td>OPA</td>
<td>Other Populated Area</td>
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<tr>
<td>OPA 90</td>
<td>Oil Pollution Act of 1990</td>
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<tr>
<td>OPEC</td>
<td>Organization of the Petroleum Exporting Countries</td>
</tr>
<tr>
<td>OPS</td>
<td>Office of Pipeline Safety</td>
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<tr>
<td>OREG</td>
<td>Oregon National Historic Trail</td>
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<tr>
<td>OSDG</td>
<td>Oil Sands Developers Group</td>
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<tr>
<td>OSLTF</td>
<td>Oil Spill Liability Trust Fund</td>
</tr>
<tr>
<td>OSRIN</td>
<td>Sands Research and Information Network</td>
</tr>
<tr>
<td>OW</td>
<td>open water</td>
</tr>
<tr>
<td>PA</td>
<td>Programmatic Agreement</td>
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<tr>
<td>PADD</td>
<td>Petroleum Administration for Defense District</td>
</tr>
<tr>
<td>PAH</td>
<td>polycyclic aromatic hydrocarbon</td>
</tr>
<tr>
<td>Pb</td>
<td>lead</td>
</tr>
<tr>
<td>PCIC</td>
<td>project cumulative impact corridor</td>
</tr>
<tr>
<td>PDVSA</td>
<td>Petróleos de Venezuela, S.A.</td>
</tr>
<tr>
<td>PEM</td>
<td>palustrine emergent</td>
</tr>
<tr>
<td>PFC</td>
<td>perfluorocarbon</td>
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<td>PFO</td>
<td>palustrine forested</td>
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<tr>
<td>PFYC</td>
<td>Potential Fossil Yield Classification</td>
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<td>Pipeline and Hazardous Material Safety Administration</td>
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<td>Petroleum Human Resources Council of Canada</td>
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<tr>
<td>PI</td>
<td>point of inflection (angle)</td>
</tr>
<tr>
<td>PM</td>
<td>particulate matter</td>
</tr>
<tr>
<td>PM₁₀</td>
<td>particulate matter with aerodynamic diameter of 10 microns and less</td>
</tr>
<tr>
<td>PM₂.₅</td>
<td>particulate matter with aerodynamic diameter of 2.5 microns and less</td>
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<tr>
<td>PMMP</td>
<td>Paleontological Monitoring and Mitigation Plan</td>
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<td>Pipeline Maintenance Program</td>
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<td>POEX</td>
<td>Pony Express National Historic Trail</td>
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<td>POTW</td>
<td>publically owned treatment works</td>
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<td>PPA</td>
<td>Protection Priority Areas</td>
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<td>PPD</td>
<td>Public Power District</td>
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<td>PPE</td>
<td>personal protective equipment</td>
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<tr>
<td>ppm</td>
<td>part(s) per million</td>
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<tr>
<td>ppmw</td>
<td>part(s) per million by weight</td>
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<tr>
<td>PPR</td>
<td>Prairie Pothole Region</td>
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<td>Project</td>
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<td>PS</td>
<td>pump station</td>
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<td>PSD</td>
<td>Prevention of Significant Deterioration</td>
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<tr>
<td>psi</td>
<td>pound(s) per square inch</td>
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<td>psig</td>
<td>pound(s) per square inch gauge</td>
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<td>Pipeline Spill Response Plan</td>
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<td>PSS</td>
<td>palustrine scrub-shrub</td>
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<tr>
<td>ptb</td>
<td>pounds per thousand barrels</td>
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<tr>
<td>PWS</td>
<td>public water supply</td>
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<td>py</td>
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<td>R</td>
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<td>R-STRENG</td>
<td>remaining strength</td>
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<td>Regional Aquatics Monitoring Program</td>
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<td>RBOB</td>
<td>reformulated blendstock for oxygenate blending</td>
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<td>RCNM</td>
<td>Roadway Construction Noise Model</td>
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<tr>
<td>Rec</td>
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<tr>
<td>REX-W</td>
<td>Rockies Express-West</td>
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<td>RFI</td>
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<td>RFS</td>
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<td>RGGI</td>
<td>Regional Greenhouse Gas Initiative</td>
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<td>RH</td>
<td>relative humidity</td>
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<td>Acronym</td>
<td>Definition</td>
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<td>TWA</td>
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<td>Union Pacific Railroad Company</td>
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<td>USACE</td>
<td>U.S. Army Corps of Engineers</td>
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<tr>
<td>USC</td>
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<td>USDA</td>
<td>U.S. Department of Agriculture</td>
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<td>U.S. Environmental Protection Agency</td>
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<td>USFWS</td>
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<td>USGC</td>
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<td>USGCRP</td>
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<td>USNABCI</td>
<td>U.S. North American Bird Conservation Initiative</td>
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<tr>
<td>UST</td>
<td>underground storage tank</td>
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<tr>
<td>VES</td>
<td>variable frequency drive equipment shelter</td>
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<tr>
<td>VLCC</td>
<td>very large crude carrier</td>
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<td>vehicle miles travelled</td>
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<td>VOC</td>
<td>volatile organic compound</td>
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<td>vol%</td>
<td>percent volume</td>
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<tr>
<td>VRM</td>
<td>visual resource management</td>
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<td>WCD</td>
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<td>Wildlife Habitat Incentive Program</td>
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<td>WHPA</td>
<td>wellhead protection area</td>
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<tr>
<td>WHSRN</td>
<td>Western Hemisphere Shorebird Reserve Network</td>
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<tr>
<td>Williston Basin</td>
<td>A large sedimentary basin in eastern Montana, western North and South Dakota, and southern Saskatchewan known for its rich deposits of crude oil</td>
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<td>Western Interior Plains Aquifer</td>
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<td>Wetland Management District</td>
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<td>white-nose syndrome</td>
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<td>WORLD</td>
<td>World Oil Refining Logistics &amp; Demand</td>
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<td>Western Regional Climate Center</td>
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<td>Wetlands Reserve Program</td>
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<tr>
<td>WSR</td>
<td>Wild and Scenic River</td>
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<td>WSRA</td>
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<td>wt%</td>
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<td>WW</td>
<td>warmwater</td>
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<td>Wyoming Game and Fish Department</td>
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<td>year</td>
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